Listing of Claims:

1. (Canceled)

2. (Currently Amended) An apparatus for collecting and reducing yard debris comprising:

a. a frame adapted for movement in a principal direction upon a surface;

b. a first duct mounted on said frame having an entrance and an exit;

c. a collector rotor assembly comprising: a collector rotor body disposed at the entrance to said first duct having a substantially horizontal axis of rotation generally normal to said first direction; and a plurality of impeller elements mounted upon said collector rotor body, said impeller elements being adapted to:

i. sweep over said surface,

ii. collect yard debris thereupon, and

iii. impel said yard debris toward said duct entrance,

said impeller elements extending radially from said collector rotor body by at least about one quarter of an inch;

said collector rotor assembly and said first duct being configured for substantially untrammeled frontal engagement with yard debris having a depth of at least about two (2) inches;

d. a second duct ~~mounted upon said frame~~ having an entrance and an exit;

e. a shredder blower unit, disposed between [[the]]said exit to said first duct and [[the]]said entrance to said second duct, adapted to:

i. provide suction at [[the]]said entrance of said first duct;

ii. induce a flow of air through said first and second ducts; and

iii. reduce yard debris entrained in said flow of air as it passes through said shredder blower unit;

f. an air-solids separator means disposed at [[the]]said exit to said second duct for separating said reduced yard debris in said flow of air induced by said shredder blower into a debris-enriched stream and a debris-depleted stream;

g. an accumulation means ~~mounted on said frame~~ operatively connected to said air-solids separator and adapted to receive said debris-enriched stream from said air-solids separator; [[~~and~~]]

h. means ~~mounted on said frame~~operatively connected to said shredder blower unit and adapted to provide power to said shredder blower unit; and ~~and said collector rotor.~~

i. means operatively connected to said collector rotor assembly adapted to provide power to said collector rotor.

3. (Original) The apparatus of claim 2 wherein said impeller elements extend radially at least about an inch from said collector rotor body.

4. (Original) The apparatus of claim 2 wherein said collector rotor assembly comprises a substantially gas-impervious impediment to unrestricted flow of air into said first duct and extends substantially athwart said entrance to said first duct.

5. (Original) The apparatus of claim 2 wherein said collector rotor assembly comprises three impeller elements generally equispaced around said collector rotor body.

6. (Original) The apparatus of claim 4 wherein said collector rotor assembly further comprises fillet means extending between adjacent impeller elements for limiting carriage of yard debris around said collector rotor assembly, wherein said fillet means partially define generally concentric interrupted annular cavity spaces between adjacent impeller elements.

7. (Currently amended) The apparatus of claim 2 further comprising a housing means for limiting the flow of air between said housing means and said collector rotor assembly without substantially impeding air flow along said surface under said collector rotor assembly and into said entrance of said first duct, said housing means:

   a. being disposed above said collector rotor assembly,

   b. being an arcuate portion of a generally cylindrical shell spanning an upper portion of said collector rotor assembly and being disposed generally concentric to said axis of rotation of said collector rotor body, [[and]]

   c. engaging each of said impeller element tips in flow-limiting proximity seriatim, and

   d. being configured to permit substantially untrammeled frontal engagement of said collector rotor assembly with said yard debris having a depth of at least about two (2) inches.

8. (Original) The apparatus of claim 7 further comprising vertically extending seal means carried on said frame adjacent to the ends of said collector rotor assembly for limiting axial flow of air flow into said rotor assembly.

9. (Original) The apparatus of claim 7 further comprising vertically extending seal means carried on said ends of said collector rotor assembly for limiting axial flow of air flow into said rotor assembly.

10. (Original) The apparatus of claim 7 wherein said housing means defines a frontal opening extending from said surface vertically to a height of at least four inches and a suction opening under said rotor extending rearwardly from the front of said apparatus at least to a line below said axis of rotation of said collector rotor body.

11. (Original) The apparatus of claim 7 wherein said impeller elements mounted on said collector rotor body are configured to allow intermittent rearward rushes of air under the forward side of said rotating rotor body into said entrance to said first duct, and pulsed forward rushes of air under said first duct and into said first duct entrance, thereby alternatingly collecting principally bulky yard debris from said forward side of said rotor body during said rearward rushes of air and enhancing collection of residual debris from said surface during said pulsed forward rushes of air.

12. (Original) The apparatus of claim 7 further comprising an air-slot means defined within said housing means between the upper lip of said housing means and said entrance to said first duct for allowing flow of air in a direction opposed to the direction of rotation of said collector rotor body and into said first duct and stripping leaves and debris from said rotating rotor assembly.

13. (Original) The apparatus of claim 2 wherein said entrance to said first duct generally spans the length of said collector rotor body and said first duct converges rearwardly such that the convergence angle throughout the duct is generally less than 100 degrees.

14. (Currently amended) The apparatus of claim 2 wherein said air-solids separator means comprises:

a. a first passage for accepting said flow of air bearing entrained reduced yard debris from said second duct;

b. a separation chamber adapted to receive said flow of air from said first passage;

c. a second passage adapted to exhaust said debris-depleted stream from said separation chamber into the atmosphere; and

d. a baffle means for:

i. generally inhibiting secondary flow from said accumulation means; and

ii. impeding re-entrainment of fine particulates in said debris-depleted stream as it is discharged to the atmosphere;

said baffle being disposed between said ~~secondary~~ separation chamber and said accumulation chamber; and

said baffle being disposed to permit passage of entrained reduced yard debris into said accumulation means while impeding passage of fine particulates of

reduced yard debris in air exhausted from said separation chamber through said second passage.

15. – 18. (Canceled)

19. (Currently Amended) The apparatus of claim [[15]]2 wherein the tips of said impeller[[s]] elements further comprise means for engaging an undulating surface, including pliable blades being yieldable to hard objects encountered on said surface, but being sufficiently stiff to sweep debris from ~~undulating~~undulations present in said surface.

20. (Currently Amended) The apparatus of claim [[15]]2 wherein [[said]]the tips of said impeller[[s]] elements comprise rows of radially-extending raker teeth adapted to engage and impel debris objects on said surface toward said ~~duct~~ entrance of said first duct.

21. – 23. (Canceled)

24. (Currently Amended) The apparatus of claim [[15]]2 wherein the cross-sectional area of the channel through said first duct measured normal to the center flow line of said airflow through said first duct remains generally constant along said center flow line.

25. (Currently Amended) The apparatus of claim [[15]]2 further comprising a lawnmower mounted on said frame wherein said collector rotor assembly and said entrance of said first duct are disposed along the advancing front of said lawnmower.

26. (Original) The apparatus of claim 25 wherein said collector rotor assembly impels said yard debris into the mowing chamber within the mowing enclosure of said lawnmower.

27. – 33. (Canceled)

34. – 39. (Canceled)

OTHER AMENDMENTS PREVIOUSLY ENTERED

Other amendments were previously entered for Application No. 10/045,123 and repeated in the Preliminary Amendment dated February 11, 2004. Except for the amendment to Figure 9, those amendments are reflected in US Patent No. 6,658,833. Re-entering them as part of this response was deemed unnecessary. Amendment of Figure 9 as shown in the Preliminary Amendment dated February 11, 2004 is respectfully requested.